

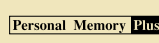
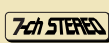
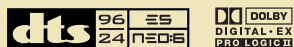
A/V Surround Receiver

# DENON AVR-983

# DENON

## Dolby Digital EX / DTS-ES and DTS 96/24 with 7ch Power Amps and Multi-room Flexibility

Dolby Digital EX and dts 96/24 have been added to offer full support for all encoded surround formats through the use of the new Analog Devices Hammerhead Sharc DSP processor.



### ■ Fully Discrete, Equal Power Seven Amplifier Channels, 90 Watts Each

Front .....	90 W + 90 W	(8 ohms, 20Hz - 20kHz, 0.05% THD)
Center .....	90 W	(8 ohms, 20Hz - 20kHz, 0.05% THD)
Surround .....	90 W + 90 W	(8 ohms, 20Hz - 20kHz, 0.05% THD)
Surround Back .....	90 W + 90 W	(8 ohms, 20Hz - 20kHz, 0.05% THD)

The AVR-983 features an equal power 7-channel amplifier section, with identical amplifier design on all 7 channels, with high current discrete output devices on all channels. Each of the 7 amplifier channels is rated at 90 watts, into 8 ohms, from 20 Hz - 20 kHz with no more than 0.05% THD.

### ■ DENON's Latest Surround Technology Faithfully Recreates the Surround Sound Produced at the Dubbing Stage.

• DTS 96/24 5.1 Decoding for DVD-Video  
High-quality 96-kHz, 24-bit (96/24) sound playback from ordinary DVD-Video recordings is limited to only two channels and there are also limitations on the picture. DVD-Video recorded in DTS 96/24, however, allows high-quality 5.1-channel sound playback in full-quality, full-motion video.

#### • DTS-ES Discrete 6.1 and Matrix 6.1

The AVR-983 is equipped with a DTS-ES decoder that supports Discrete 6.1 and Matrix 6.1. Discrete 6.1 faithfully reproduces program sources originally recorded in 6.1-channel sound, and Matrix 6.1 performs matrix processing on the Surround and Left Surround signals and brings out Right Surround Back channels.

#### • DTS NEO:6

DTS NEO:6 lets you enjoy 2-channel analog, PCM, and Dolby Digital 2-channel sources in full 6.1-channel surround sound.

#### • Dolby Digital EX

Dolby Digital EX, a 6-channel surround format proposed by Dolby Laboratories, was jointly developed by Dolby Laboratories and LucasFilm Ltd. to bring the dynamic wealth of Dolby Digital Surround EX into the home. The warm playback of 6.1 channels which include surround back channels enables easy positioning of sound images directly behind the listener, dramatically improving the spatial expressiveness of the surround field.

#### • Dolby Pro Logic II

With the AVR-983, you can use Dolby Pro Logic II to do more than just enjoy your 2-channel analog, PCM, and Dolby Digital 2-channel sources in surround sound ambiance.

#### • Auto Surround

The AVR-983 can automatically store the surround mode for any of four input signals: (1) Analog and PCM 2 channel, (2) Bit stream 2-channel (Dolby Digital, DTS) and (3) Bit stream multi-channel. If the type of input signal changes, the most appropriate surround mode is automatically selected for the signal.

### ■ High-quality 100MHz Bandwidth Component Video Switching

The AVR-983's Component Video terminals allow you to connect, and switch, up to 2 sources utilizing these high resolution video outputs. A high-performance relay with a 100MHz bandwidth is utilized to switch signals with no signal loss or degradation, making it most compatible with HDTV and Progressive Scan DVD sources. These terminals can be especially useful if your display device has only one set of Component Video inputs.

### ■ High Power Custom Transistor

When temperatures rise or fall inside the unit, bias current values supplied to the power transistor tend to fluctuate, causing sound quality to deteriorate. The high power custom transistor used in the AVR-983 ensures that the bias current is constantly uniform so that the sound you hear is of consistently stable, high quality.



### ■ Finest DSP employed for faster processing and higher sound quality

• 32-bit Floating Point DSP  
Hammerhead Sharc, the latest DSP from Analog Devices, is used for the decoder to further boost digital signal processing capability and also providing the highest dynamic range. Faster processing speed results in more complete surround decoding.

### ■ 7-CH Stereo Mode

Denon's popular 5-CH/7-CH Stereo mode transforms your favorite 2-channel sources such as CD, tape, stereo radio and stereo video sources into exciting surround sound, free of delay effects and unnatural artifacts, from all speakers. This 5-CH/7-CH Stereo mode was originally developed by DENON to enhance music lovers' enjoyment in home theater ambiance.

**■ 24 bit, 96 kHz All-channels Differential-mode D/A Conversion**

For the optimum fidelity and transparency, the AVR-983 features new high resolution Analog Devices 24-bit, 96 kHz DACs, in 16-DAC differential configuration (2 D/A channels per each audio channel).

**■ Newly redesigned pre-programmed remote controller with learning feature**

The AVR-983 comes with a newly-developed remote controller with the most frequently used keys layed out in the center and an easy-to-grip shape and size.

- Preset Memory
- Learning functions
- System Call
- Glow Keys
- Supports independent Power On and Off commands

**■ Support for Multi Zone Configurations**

- The AVR-983 provides a Multi Zone Output function and a Select function that let you output different sources to multiple zones. Sources can be selected for output to an additional zone, in addition to the main room. Multi-room Zone 2 can have variable pre-amp output. The AVR-983's Power Amplifier Assign function lets you assign the 2 Surround Back (SB L/R) amplifier channels when the system is not configured for 7.1, to instead drive the Multi-room Zone 2 speakers, with 90 Watts per channel output power, while still providing 5 discrete amplifier channels to drive all speakers in a 5.1 configured home theater room.
- +12 V Trigger Output
- Serial Control Port to support an AMX, Crestron integrated control system
- Remote IN/OUT

**■ 1 Set of 8-Channel External Analog Inputs**

**■ Other features that enhance operating ease**

- Variable Gain Volume
- S/N in the usable area has been improved. Finer adjustments are also possible in 0.5 dB steps across the extended range of -80 dB to +18 dB.
- Adjustable Cross-Over Switching
- The AVR-983 supports subwoofer cross-over switching with a choice of 5 cross-over frequencies: 40, 60, 80, 100, and 120 Hz. This lets you more accurately match the performance characteristics of the subwoofer to the main speaker system.
- A/B switching between front speakers

**■ Frequency Synthesis Tuning**

- 40-Station AM/FM Random Preset Memory Tuning
- Auto Preset Memory

**■ Input/Output Terminals For Every A/V System**

**• Audio Inputs**

- 11 Sets Analog Input ..... PHONO, CD, TUNER, DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX, CDR/TAPE
- 1 Set 8-ch Analog EXT. Input..... FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER
- 4 Sets Digital (Optical) Input ..... OPTICAL x 4
- 1 Set Digital (Coaxial) Input ..... COAXIAL x 1

**• Audio Outputs**

- 8 Sets Analog PRE Output ..... FRONT L/R, CENTER, SURROUND L/R, SUBWOOFER, SURROUND BACK L/R
- 3 Sets Analog REC Output ..... VCR-1, VCR-2, CDR/TAPE
- 1 Set Analog Multi Zone Output ..... L/R
- 1 Set Digital (Optical) Output ..... OPTICAL x 1

**• Video Inputs**

- 2 Sets Component Video Input ..... VIDEO 1, VIDEO 2
- 7 Sets S-Video Input ..... DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX
- 7 Sets Composite Input ..... DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX

**• Video Outputs**

- 1 Set Component Video Output ..... MONITOR
- 3 Sets S-Video Output ..... VCR-1, VCR-2, MONITOR
- 3 Sets Composite Output ..... VCR-1, VCR-2, MONITOR

**Specifications**

**■ Power Amplifier Section**

Rated output	*THD figures are power amp stage values.
Front .....	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, 0.05 % THD) 125 W + 125 W (6 ohms, 1 kHz, 0.7 % THD)
Center .....	90 W (8 ohms, 20 Hz - 20 kHz, 0.05 % THD) 125 W (6 ohms, 1 kHz, 0.7 % THD)
Surround .....	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, 0.05 % THD) 125 W + 125 W (6 ohms, 1 kHz, 0.7 % THD)
Surround Back .....	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, 0.05 % THD) 125 W + 125 W (6 ohms, 1 kHz, 0.7 % THD)

**■ Preamplifier Section**

Input sensitivity/Impedance	
PHONO(MM).....	2.5 mV/47 kohms
CD, DVD, VDP, TV, DBS, VCR-1, VCR-2, CDR/TAPE .....	200 mV/47 kohms
Output level/Load Impedance	
FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK SUBWOOFER.....	1.2 V/10 kohms
VCR-1, VCR-2/V.AUX, CDR/TAPE, MULTI ZONE L/R .....	200 mV/47 kohms
Frequency response .....	10 Hz - 100 kHz (+1, -3 dB, Direct mode)
Signal-to-noise ratio .....	102 dB (Direct mode)
RIAA deviation.....	±1 dB (20 Hz - 20 kHz)
Tone control .....	Treble: ±10 dB Bass: ±10 dB

**■ FM Section**

Tuning frequency range .....	87.5 - 107.9 MHz
Usable sensitivity .....	1.0 μV (11.2 dBf)

**■ AM Section**

Tuning frequency range .....	520 - 1710 kHz
Usable sensitivity .....	18 μV

**■ General**

Power supply .....	AC 120 V, 60 Hz
Power consumption .....	5.5 A
Dimensions.....	434 (W) x 171 (H) x 416 (D) mm 17.1" (W) x 6.7" (H) x 16.4" (D)
Weight .....	13.0kg, 28.7 lbs



(\*) Note on Movie mode:  
On DENON A/V receivers, this Movie mode is displayed as "MODE CINEMA".

\*Design and specifications are subject to change without notice.  
\*\*"Dolby", "Dolby Digital", "Pro Logic II", and the double-D device are registered trademarks of Dolby Laboratories Licensing Corporation.  
\*\*\*"DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater System, Inc.

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